

ATTORNEY DOCKET NO.: 71205

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patentee : BLOTENBERG
Patent No. : US 7,025,558 B2
Issued : April 11, 2006
For : PROCESS FOR THE RELIABLE OPERATION OF TURBOCOMPRESSORS
WITH SURGE LIMIT CONTROL AND SURGE LIMIT CONTROL VALVE
Dated : September 28, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
ATTN.: Mail Stop DAC

REQUEST FOR CERTIFICATE OF CORRECTION
UNDER 37 CFR § 1.322

Patentee respectfully requests that a Certificate of Correction under 37 CFR § 1.322 be issued for the above identified patent properly identifying the Assignee as MAN TURBO AG. The Letters Patent received by Patentee's representatives listed the Assignee as Man Turbo AG. This is incorrect.

A Request for Certificate of Correction Under 37 CFR § 1.322 requested a Corrected Certificate of Correction showing the Assignee as MAN TURBO AG. When the Certificate of Correction Issued, the Assignee was shown as MANTURBO AG.

For verification, Patentee submits a copy of the Issue Fee Payment Form clearly showing the Assignee as **MAN TURBO AG**.

For your convenience, Patentee encloses a copy of the Letters Patent cover page with the correction indicated and a Certificate of Correction.

Applicant also encloses a copy of the Certificate of Correction issued on September 17, 2006.

Based upon this evidence, Patentee respectfully requests that a Certificate of Correction be issued for the above identified patent properly identifying the Assignee as **MANTURBO AG**, at no cost to the Patentee as this was due to U.S. Patent Office error.

Favorable action is respectfully requested.

Respectfully submitted
for Patentee(s),



By: _____
John James McGlew
Registration No. 31,903
For: MCGLEW AND TUTTLE, P.C.

JJM:
71205.6

Enclosures: Copy of Incorrect Letters Patent cover page
Certificate of Correction
Certificate of Correction issued on September 19, 2006
Issue Fee Payment Form

DATED: September 28, 2006
SCARBOROUGH STATION
SCARBOROUGH, NEW YORK 10510-0827
(914) 941-5600

NOTE: IF THERE IS ANY FEE DUE AT THIS TIME, PLEASE CHARGE IT TO OUR DEPOSIT ACCOUNT NO. 13-0410 AND ADVISE.

40237 Düsseldorf, Germany
Dipl. Ing. Ingo Radünz
Patentanwalt
Schumannstr. 100
40237 Düsseldorf, Germany

Client Ref. : 2657 US
Our Ref. : 71205



US007025558B2

(12) **United States Patent**
Blotenberg

(10) **Patent No.:** US 7,025,558 B2
(45) **Date of Patent:** Apr. 11, 2006

(54) **PROCESS FOR THE RELIABLE OPERATION OF TURBOCOMPRESSORS WITH SURGE LIMIT CONTROL AND SURGE LIMIT CONTROL VALVE**

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6,193,470 B1 2/2001 Aurbek
2001/0022938 A1 9/2001 Blotenberg
2002/0062679 A1 5/2002 Petrosov

(75) **Inventor:** Wilfried Blotenberg, Dinslaken (DE)

(73) **Assignee:** Man Turbo AG, Oberhausen (DE)

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 67 days.

FOREIGN PATENT DOCUMENTS

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(Continued)

Primary Examiner—Edward K. Look

Assistant Examiner—Igor Kershteyn

(74) *Attorney, Agent, or Firm*—McGlew & Tuttle, P.C.

(21) **Appl. No.:** 10/763,103

(22) **Filed:** Jan. 22, 2004

(65) **Prior Publication Data**

US 2004/0151576 A1 Aug. 5, 2004

(57) **ABSTRACT**

(30) **Foreign Application Priority Data**

Jan. 31, 2003 (DE) 103 04 063

(51) **Int. Cl.**
F04D 27/02 (2006.01)

(52) **U.S. Cl.** 415/1; 415/17

(58) **Field of Classification Search** 415/1,
415/17, 30, 36, 159, 160, 163

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

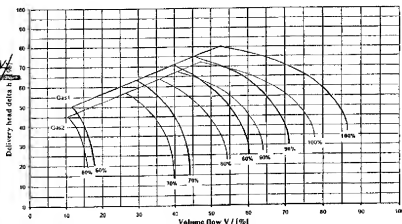
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A process for the reliable operation of turbocompressors with a surge limit control and a surge limit control valve is described, in which the compressor delivers gases with different compositions and the composition of the gas (molecular weight) affects the performance characteristic of the turbocompressor and hence the position of the surge limit in the performance characteristic. The different compositions of the gases are compensated here with the effect on the position of the surge limit and consequently on the position of the surge limit control line by using predetermined design values for the gas constant R, the isentropic exponent k and the compressibility number z within the surge limit control for the determination of the delivery head Δh and the volume flow V and plotting them in the form of a predetermined surge limit line (FIG. 2, FIG. 4), wherein the set point and the actual value are determined for the surge limit control from the graph, and the compressor is operated with the set points and actual values determined for the surge limit control with a minimally necessary distance from the surge limit.

4 Claims, 7 Drawing Sheets

LARGE ENTITY

EXPIRES 07-14-2014



UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : US 7,025,558

Page _____ of _____

APPLICATION NO.: 10/763,103

ISSUE DATE : April 11, 2006

INVENTOR(S) : Wilfried Blotenberg

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The Letters Patent that issued incorrectly listed the name of the Assignee as Man Turbo AG.

The correct name of the Assignee as shown on the Issue Fee Form showed the name as MAN TURBO AG.

The Certificate of Correction received from the U.S. Patent Office showed the Assignee as MANTURBO AG.

The correct name to be listed for the Assignee on the Letters Patent is MAN TURBO AG.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

McGlew and Tuttle, PC
PO Box 9227 - Scarborough Station
Scarborough, New York 10510-9227

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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T B - FEE(S) TRANSMITTAL

complete and send this form, together with applicable fee(s), to: **Mail**

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Alexandria, Virginia 22313-1450
(571) 273-2885**

or **Fax**

(571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

000023472 7590 09/08/2005

**MCGLEW & TUTTLE, PC
P.O. BOX 9227
SCARBOROUGH STATION
SCARBOROUGH, NY 10510-9227**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Express Mail No. EV435294385US

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPIO (571) 273-2885, on the date indicated below.

ToniAnn Fonte (Depositor's name)
ToniAnn Fonte (Signature)
December 7, 2005 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,103	01/22/2004	Wilfried Blotenberg	71205	7441

TITLE OF INVENTION: PROCESS FOR THE RELIABLE OPERATION OF TURBOCOMPRESSORS WITH SURGE LIMIT CONTROL AND SURGE LIMIT CONTROL VALVE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	12/08/2005
EXAMINER	ART UNIT	CLASS-SUBCLASS			
KERSHTEYN, IGOR	3745	415-001000			

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563).
- ☐ Change of correspondence address (for Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47, Rev. 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

McGlew & Tuttle, P.C

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

MAN TURBO AG

Oberhausen, Germany

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

- 4a. The following fee(s) are enclosed:

- ☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☒ Advance Order - # of Copies **1**

- 4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
☒ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

- ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above, interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature

Date **December 7, 2005**

Typed or printed name

Registration No. **31,903**

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,025,558 B2
APPLICATION NO. : 10/763103
DATED : April 11, 2006
INVENTOR(S) : Wilfried Blotenberg

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On The Title Page:

Item (73) Assignee "Man Turbo AG" should read -- MANTURBO AG --



Signed and Sealed this

Nineteenth Day of September, 2006

A handwritten signature in black ink, reading "Jon W. Dudas".

JON W. DUDAS
Director of the United States Patent and Trademark Office